

FREE

WWW.PERFORMANCECANADA.COM | JUNE 2004 | VOL. 2 | NO. 6

# PERFORMANCE PC

CANADA'S NEXT GENERATION COMPUTER PUBLICATION

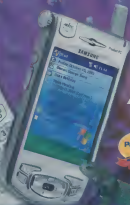
## Samsung

**SGH - A600 Camera Phone**  
**I700 Pocket PC Phone**

**Review of**  
**Alkatraz**  
**FM5700 Ultra**

**Top 10**  
**Book List**

**Video Game**  
**as Art**



**Award**  
**Winners**

PERFORMANCE PC

*Canada's Next Generation*

Place Your  
Classified Ad  
Online

**FREE**

See p.26 for details



# NCIX.com

Great Technology, Service & Selection

© 2004 NCIX Corporation Inc.

Join or weekly newsletter & win monthly prizes!

**Klipsch**  
Winning DVD Player  
150 Watt Channel 5.1/6.1  
\*Eligible only, see website for details

**BenQ**  
Win a 15" LCD TV  
A \$670 value!

Enter the Spring Code at NCIX.com for special prices

NCIX PC systems. Amazing quality, outstanding performance and excellent value.

**FREE SHIPPING**  
ON THESE SELECTED SYSTEMS

For details on system value, shipping cost, and other details, visit [www.ncix.com](http://www.ncix.com)

All prices include GST and PST (where applicable)

\*All prices are subject to change without notice

†All prices are subject to change without notice

**ncix.com: Entra 1280™**  
AMD™ Athlon™ 64 System, Intel® Network

**\$798**

• AMD™ Athlon™ 64 processor  
• 1GB DDR2 533MHz memory  
• 160GB SATA 7200 RPM hard drive  
• DVD±RW drive  
• 15" LCD monitor  
• Windows XP Home Edition  
• Intel® Network Adapter  
• 3 Year warranty

SPRINGER & COMPANY INC. © 2004 NCIX.COM

**ncix.com: Entra 2000™**  
AMD™ Athlon™ 64 System, Intel® Network

**\$668**

• AMD™ Athlon™ 64 processor  
• 1GB DDR2 533MHz memory  
• 160GB SATA 7200 RPM hard drive  
• DVD±RW drive  
• 15" LCD monitor  
• Windows XP Home Edition  
• Intel® Network Adapter  
• 3 Year warranty

SPRINGER & COMPANY INC. © 2004 NCIX.COM

**ncix.com: Vista 1200™**  
Intel® Celeron® 2.4 GHz System

**\$529**

• Intel® Celeron® 2.4 GHz processor  
• 512MB DDR2 533MHz memory  
• 160GB SATA 7200 RPM hard drive  
• DVD±RW drive  
• 15" LCD monitor  
• Windows XP Home Edition  
• Intel® Network Adapter  
• 3 Year warranty

ALL PRICES INCLUDE 1 YEAR WARRANTY

**BenQ Monitors**

FP771 / Black/Silver 17" LCD Monitor

**\$549<sup>99</sup>**

FP771 17" LCD Monitor

**\$839<sup>99</sup>**

**Softtek 75FRN2-L**

Socket 475 Athlon 2.6GHz processor

**\$80<sup>99</sup>**

Softtek 75FRN2-L

**\$114<sup>99</sup>**

**Intel® Pentium® 4 2.8GHz**

Real 8.0 Yenkor with 1 Year Warranty

**\$248<sup>99</sup>**

Intel® Pentium® 4 2.8GHz

**\$239<sup>99</sup>**

**ASUS P4P800 DELUXE**

AGP, SATA, USB, 1394, Sound & LAN

**\$159<sup>99</sup>**

ASUS P4P800 DELUXE

**\$239<sup>99</sup>**

**Klipsch Speakers**

ProMedia Ultra 5.1 DVD Certified 1 Zone

**\$578<sup>99</sup>**

ProMedia Ultra 5.1 DVD Certified 1 Zone

**\$299<sup>99</sup>**

**Antec Computer Cases**

1.8kW with 120W Antec PSU

**\$113<sup>99</sup>**

Antec 120W Antec PSU

**\$138<sup>99</sup>**

**Optodisc 4x DVD-R**

4.7GB Mark Media / 25-packs available

**\$19<sup>99</sup>**

Optodisc 4x DVD-R

**\$19<sup>99</sup>**

**NEC 8x DVD±RW**

HD-25000 8000/4000/20x Software

**\$109<sup>99</sup>**

NEC 8x DVD±RW

**\$109<sup>99</sup>**

**ASUS Radeon 9600SE**

128 meg RAM with DVI & Software

**\$109<sup>99</sup>**

ASUS Radeon 9600SE

**\$88<sup>99</sup>**

**AMD Athlon 64 2800+**

AMD 64 Technology Leadership

**\$229<sup>99</sup>**

AMD Athlon 64 2800+

**\$129<sup>99</sup>**

**80GB HDD**

7200 RPM 48MB Cache Hard Drive

**\$89<sup>99</sup>**

Seagate 80GB Hard Drive

**\$123<sup>99</sup>**

**D-Link 4 Port Router**

DI-604 Internet Router

**\$42<sup>99</sup>**

Bytream 3.5" Hard Drive Enclosure

**\$55<sup>99</sup>**

© 2004 NCIX Corporation Inc. All rights reserved.

**NO HIDDEN FEES!**

For details on system value, shipping cost, and other details, visit [www.ncix.com](http://www.ncix.com)

Visit **NCIX.com** to order! FAST & EASY shipping anywhere in Canada!

**THREE GREAT LOCATIONS**

MISSISSAUGA: 5040 Kingsway, Toronto, ON M3J 1K2 Tel: (416) 671-1000 Fax: (416) 671-1001  
MONTREAL: 1100 St-Basile, Montreal, QC H3T 1Y1 Tel: (514) 399-8888 Fax: (514) 399-8889  
VICTORIA: 1000-1000 Capital Way, Victoria, BC V8T 4T1 Tel: (250) 371-8888 Fax: (250) 371-8889

Toll Free 1-800-8-NCIX

At 1-800-8-NCIX, you can order from the comfort of your home. We'll deliver your order to your door. We'll even help you with your order. We'll even help you with your order. We'll even help you with your order.



Combine **two** broadband connections!  
Increase your bandwidth!

## TWIN WAN ROUTER



### DSL, Cable, and/or T1

#### Features

- High Performance NAT Router
- Hardware Based SPI Firewall
- DHCP Server & Multiple DMZ
- URL Blocking & Virtual Servers
- SNMP Remote Management
- HTML GUI Interface
- 3-year Warranty with Lifetime Tech Support & Firmware Updates

When utilizing the combined bandwidth of two separate broadband connections at the same time, the XINCOM Twin WAN Router truly brings you *the T1 alternative!*

## TWIN WAN ROUTERS

#### Overview

XINCOM's Twin WAN Routers provide a secure and reliable connection to the Internet and corporate network connectivity to small branch offices and small to medium sized businesses. These routers have dual WAN ports that allow you to connect two separate broadband connections of any type, including Cable, DSL and/or T1 for ultimate automatic fail-over and load balancing. With cutting edge features like NAT, SPI Firewall, DHCP server, and Access Filters makes this a must have for any network.



**XC-DPG302 TWIN WAN ROUTER**  
w/ 44 Mbps, QoS, and uPNP ..... **\$299.00 USD**



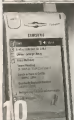
**XC-DPG403 TWIN WAN ROUTER**, ..... **\$349.00 USD**  
w/ 12 Mbps throughput



**XINCOM**  
Visit [www.xincom.us](http://www.xincom.us)

XC-DPG302 and XC-DPG403 are subject to change without notice. All prices are in US Dollars and subject to change without notice. © 2004 XINCOM, Inc. All rights reserved.





June 2004 VOL 3 No 6  
www.performancepcmagazine.com

## Product Review

- Alcatron F85700 Ultra ..... 8
- The Samsung SCH-A600 Camera Phone ..... 8
- Samsung T700 Pocket PC Phone ..... 10

## Feature

- PerformancePC Spring 2004 Awards ..... 10
- Publisher's Pick - Top Ten Book List ..... 20

## News Flash

- Xinora Revolutionizing the networking market... 14

## Emerging Cultures

- Video Games as Art ..... 24

## Columns

- Company Directory ..... 30

Visit [www.performancepcmag.com](http://www.performancepcmag.com) to enter the contest for your chance to

# WIN

an mini pocket digital camera from inkjetmart

# PerformancePC

Canada's most authoritative computer magazine

June 2004 VOL 3 No 6

### Senior Editors

Douglas Keller  
Rafael Khosravi  
James Scott  
Mike Corbin  
mailto:performancepc@comcast.net

### Associate Publisher / Art Director

Sherry Ho  
sherry@performancepcmag.com

### President / Publisher

Joshua Paul  
joshua@performancepcmag.com

### Ad Sales

sales@performancepcmag.com

### Ad Contributions

ads@performancepcmag.com

### Distribution

distrib@performancepcmag.com

For information on advertising, Call 800-628-0468  
#326 425 Canal St. Vancouver BC Canada V6B 5G2

PerformancePC Magazine Magazine is a free quarterly computer publication published quarterly by Best Code International, an Internet technology company of the publisher on demand from Canada that is required to be accepted and licensed for publication. Content made or supplied by the company and its affiliates. The publisher assumes no responsibility for any statements, views or opinions. Content made or supplied by the company is intended to be advisory without the intent of PerformancePC Magazine.

The publisher assumes the right to refuse advertisements and editorial content submitted by the publisher. Publication of any form of PerformancePC is published. All rights reserved.

Senior Publisher (Best Code) Joshua Paul #408-0204  
Printed in Canada

# SKYWAY WEST

BUSINESS  
INTERNET  
SERVICES

[info@skywaywest.com](http://info@skywaywest.com) [www.skywaywest.com](http://www.skywaywest.com)

**604 482 1225**

## Full service Internet Service Provider

- Reliable Access and Excellent Service
- Power-up your LAN with Business Class ADSL, Wireless and Fibre Access
- Internet phone and Private Networks Co-located, Web and FTP Hosting Email and Domain Name Services

Serving BC and Alberta

## Subscribe to PerformancePC NOW!

Please send subscription to PerformancePC

One year subscription Cdn \$12.00

My payment for total amount by:

☐ Cheque ☐ Money order payable to Best Code International

☐ Visa ☐ MC

☐ MasterCard ☐ AmEx

signature line

Name of subscriber

Company (if applicable)

Address

City

Province

Postal Code

Phone number

Email

subscription fee non-refundable to subscribers

Please send this form to PerformancePC

#326 425 Canal St. Vancouver BC Canada V6B 5G2 Website: [www.performancepcmag.com](http://www.performancepcmag.com)  
Tel 604 482 1225 Fax 604 482 1244 Toll 800 628 0468 Email: [info@performancepcmag.com](mailto:info@performancepcmag.com)





# Make it go further

By Arthur Paul



“With each issue PerformancePC has gotten better, due because of the hard work everyone has put in, but maybe also because it is somehow getting easier. Just kidding. (-) We now distribute to over 630 (isn't that almost 700 (-)) locations, and we are printing 25,000 copies.

To make those 25,000 copies go further, here at PerformancePC we ask that you pitch in (not out) and help save the environment. Everyone please recycle - that means making sure 20 or 30 other people read BEFORE it goes in the newspaper bin when you are done with it. However if you are really into recycling and get 100 friends to sign the magazine WITH their phone numbers (we know you'd never dream of cheating - we just want to keep you honest) you will be entered to a Xmas cash draw contest, a \$199 value.

Of course the only reason for this contest is so that we can say that 1 copy of our magazine is read by more than 10 people, and as you know when 10 is multiplied by 25,000 it equals 250,000. Which shows that a huge number of people in the Lower Mainland read PerformancePC, which means

it's a good place to advertise, and that you should call me right now at 604 438 0868 to book space in the next issue. Anyway, that's enough silliness for this issue.

In this issue we have, as always the best computer related editorial the world has to offer - and now for the first time ever, a PerformancePC premier - 2 features on internet enabled cell phones!

I know at least some of you are sceptically shaking your heads - cell phone internet speeds are too slow to be useful. Friends, nothing could be further from the truth! (-)

I use my fliptop everyday for email and instant messaging, even surfing. I have had a web enabled cell phone for almost 10 months and I can't imagine living without one. And the lack of coverage in remote areas isn't a bug - it's a feature! Now when I go to Alsea Lake outside Squamish I can relax knowing that cell phone is not in service (however if Telus' bid for Microcell goes through that may change) and meddling clients will interrupt family no longer.

What might the future of web enabled cell phones bring? Well as PCs have had to be equipped with software to keep Junior out of websites he should have access to, so to will cell phones. Now where can I find some venture cap so I retire early?? (-) **B**

<p><b>Your World</b></p>	<h2>Want Internet and Long Distance Service without the Headaches?</h2> <p>1994 - 2004 Celebrating 10 years Serving Western Canadians</p> <p><b>You Do Have a Choice!</b></p>	<p><b>Your Communications</b></p>
<h3>HIGH SPEED INTERNET SAVE \$10 PER MONTH</h3> <p><b>\$24.95/mo.*</b></p> <p><small>2007 Always On Connection</small></p> <p><b>WHY WE'RE BETTER</b></p> <ul style="list-style-type: none"> <li>• No Sign-up fees</li> <li>• No Hidden Costs</li> <li>• Real People</li> <li>• Great Service &amp; Support</li> </ul>	<p><b>Your Way Your Service</b></p> <p>SINCE 1994</p> <p><b>light speed</b> COMMUNICATIONS</p> <p><b>604-482-1190</b></p> <p><a href="http://www.lightspeed.ca">www.lightspeed.ca</a> / <a href="mailto:info@lightspeed.ca">info@lightspeed.ca</a></p> <p><b>Superior Business DSL Available</b></p> <p><small>lightspeed is a registered and licensed ISP in BC</small></p>	<h3>Crystal Clear Voice LONG DISTANCE SAVINGS</h3> <p><b>COMPARE OUR RATES</b></p> <ul style="list-style-type: none"> <li>• 5 cents in Canada</li> <li>• 6 cents to the U.S.</li> <li>• 7 cents to the U.K.</li> <li>• 7 cents to Hong Kong</li> </ul> <p>→ Call anytime of Day → Dial direct every time</p>
<p>→ Web based Email → Personal/Family Web Pages</p> <p><b>Includes free modem</b> <small>*add monthly in other areas</small></p> <p><small>Service made possible thanks to government Offer Expires Soon - Sign Up Today!</small></p>	<p><b>BBB</b> ACcredited</p>	<p><b>Switch your Long Distance &amp; Get \$10 in Free Calling!</b></p> <p><b>+Add Unlimited Internet for \$9.95/mo</b></p>



# Albatron FX5700 Ultra

Review By James Sams



## Overview

After consistently lackluster reviews for their FX3600, Nvidia's revision of the series and a winning chipset, the FX5700. With reports that ATI has overtaken Nvidia to become the number two chip supplier, next to number one Intel, Nvidia needed to continue to work hard to regain their reputation and market share. It appears that they have gained sufficient experience with this GPU and manufacturing process to pump out a surprisingly better card than was seen with the first revision, the FX5600. It will be interesting to see if Nvidia can improve upon the next generation of cards as much as they improved this revision.

A sign of the times, cards are increasingly coming without DVI-to-VGA converters, as companies assume buyers own an LCD. As an owner of two 19" CRT monitors, I find this a poor assumption as many simply do not have the money to shell out for LCDs. Even if I am a minority consumer in this respect, there are still significant contrast and ghosting issues with LCDs, making them only mediocre options for hardcore gaming. This situation is improving and having the optional



VGA to LCD grants the ability to use an LCD in the future. This ensures that the card does not become obsolete as the technology changes.

The market for this card is the upper-midrange. With a US\$300 price tag, most gamers are willing to shell out the money to upgrade, making the card the mainstream for gamers, though excessive for average email-and-browsing users. The 3700 is an evolution of the 5600 card and is in competition with ATI's 9600 series cards, specifically the 9600XT.

## General Layout

The card itself is a bit of a beast. As all GeForce FX cards this one requires additional power from a 4-pin molex. This is becoming more common as video cards are power hungry and the AGP slot does not provide enough power by itself for today's cards. ATI is still attempting to avoid this necessity, though not always succeeding. With the heat that processors and hard drives are producing now, the last thing most need is their box as another heat producing entity, which any card that requires outside power inevitably will be. Thankfully, Albatron has veered from the reference design and designed a custom heat sink/fan combination



they dub Wise Fan II. The system features three fans, two of which remain powered all of the time, with the third one kicking in if the heat gets above what the card thinks is an acceptable level. Also, if one of the fans dies, the other one will automatically lock in permanently. However, there is no feature that lets you know if one of your fans have died, though this shouldn't occur as a great feature especially on video cards today.

The heat sink itself is for the most part a very satisfactory cooling solution. However, the device itself falls short in one area while the system itself has another flaw. The thermal pads for the RAM are about 2mm thick, a bit much even for thermal adhesives. I'm curious as to the impact this has on the RAM over clocking. However, the RAM sinks for the back of the card are sufficient, though by no means generous. However, many manufacturers fail to provide any RAM sinks whatsoever, and we applaud Albatron for doing so.

The second 'flaw' that cropped up in the cooling solution



Continue on page 12

**Solid hosting to keep your business balanced**

**Stretch The Value Of Your Dollar**  
Host your website for only **\$2/month**



- 50 MB Storage
- 1000 MB Monthly Transfer
- 20 Email Accounts
- FTP Access
- Password Protected Pages

- PHP & ASP Supported Scripts
- Email Forwarding & Autoresponders
- Domain Control Panel
- PHP & Perl CGI/ASP/Perl/ASP
- Advanced Control Panel
- Advanced Web Statistics

## Basic Plan

- 100 MB Storage
- 2000 MB Monthly Transfer
- Unlimited Email Accounts
- Unlimited Subdomains
- PHP & ASP Supported Scripts
- Password Protected Pages
- PHP & Perl CGI/ASP/Perl/ASP
- 100 MB Monthly Transfer

**\$4.85**  
/month

Our Domain Name program is available for an additional \$2.00

Visit us at [www.weblogix.net](http://www.weblogix.net) for more details and additional information.  
Bank of America is not a Weblogix.net company. Bank of America is a registered trademark of Bank of America Corporation.



Half Price  
Computer Books  
Presents

# Our 8th Anniversary Sale!

## 70% off

*all regular stock books!*

## 25% off

*all "New & Notable" books!*

*Sale runs from June 5th to  
June 20th! Come in early  
for the best selection!*



**HALF  
PRICE**



**Vancouver**  
530 West 8th Avenue  
604-678-1007

**Vancouver**  
550 Seymour Street  
604-689-7774

**Phoenix**  
4289 Longwood Hwy  
604-281-1033

**Victoria**  
382-2850 Douglas St.  
250-844-4647

**Coquitlam**  
407 Schoolhouse Road  
604-521-8905

**Visit Us  
Online!**  
[www.halfpricecomputerbooks.com](http://www.halfpricecomputerbooks.com)





## The Samsung SCH-A600 Camera phone

By Peter Dinklage

<b>Display features:</b>	160 X 128 pixel 65K TFT color
<b>Camera features:</b>	2.00 M Adjustable rotating lens 4X digital Zoom Built-in lens frames template Built-in flash
<b>Phone features:</b>	Web ready Voice activated dialing and voice memo 300 multiple entry phone book Calendar, alarm clock, world clock, calculator and notepad Unique Rotating Flip Design - Flip and lock the upper half of the phone and use the main LCD as Picture Caller ID or to use the camera Extended talk time: up to 3 hours, standby time, up to 4 days Weight: 120 grams Dimensions: 50mm x 49mm x 24mm
<b>Ric:</b>	\$200 without a sales contract, \$500 dollars with \$3.25 per picture sent. Free to receive picture, add an extra \$0.25 for each attachment.

The Samsung SCH-A600 is one of three Camera phone models that TeleMobility ([www.telemobility.com](http://www.telemobility.com)) is offering for their picture messaging bundles. Ergonomically, it is very sleek looking flip phone. The top part of the phone can flip 180 degrees and fold back, leaving the user an external display

feature. The camera has an almost 90 degree freedom of movement. It can rotate up and down allowing the user more freedom in choosing the lens angle. The clamshell design with the rotating lens is surely a fashion decision. If the screen was touch screen, I could see the purpose for this feature. One possible benefit of always carrying the phone with the screen up is that you can always see the number of the person who is calling you. The

drawback to this system is that the screen becomes soiled very quickly. One thing that took some time to getting used to, was that there is a "Send" button and an "OK" button. To receive calls you have to press send. That didn't make sense to me, as in a couple of occasions I was pressing "OK" to receive calls.

Continue on page 22



Compucon Monthly Special  
 P4 2.6GHz 3000MHz System  
 Intel® 845P CS 80GB HD Motherboard  
 512GBR 4GB / 120GB 7200 HDD  
 LG 16X DVD/CDRW Speaker  
 Realtek Clear Keyboard Mouse

Reg \$599 **\$899**



**COMPUCON**  
 COMPUTER DISTRIBUTION LIMITED  
 One Appleton Way, Suite 207, Oakville, ON L4W 5Y6

**604-249-1110**

Home

Log In

System

Cart

Contact Us

[info@compconex.com](mailto:info@compconex.com)

## Accessories

Barcode

Cameras

Cases

Controllers

Coolers

CPUs

Floppy Drives

Hard Drives

Input Devices

Modems

Monitors

Motherboard

Networking

Parallel Cables

Optical Devices

Printers

Projectors

RAMs

Scanners

Software

Sound Cards

Speakers

Storage Devices

Systems

Video Cards

Webcams

Compucon Computer  
 Distribution

#1115-1571 Skull Rd

Richmond Hill, ON

Tel: (904) 249-1110

Fax: (904) 249-1109

E: [info@compconex.com](mailto:info@compconex.com)

W: [www.compconex.com](http://www.compconex.com)

Warehouse

1708 Burgess St

Brampton, ON L6Y 4S2

Business Hours

Mon-Fri 10AM - 6:00 PM

Sat: 11AM - 5:00 PM

Closed - Sun & Holidays

HP LJ1300 MONO

1820PPM 16MB

183MHz

**\$495**



BenQ FP678 15"

LCD 1024X768 16MB

**\$405**



Acer P4500-NX

518 661FX 31PC

900F50 HT

**\$84**



Cartidge TH302

1000 1200

10" Neon

**\$139**



AVID XP 2200+

Retail Box w/ fan

**\$93**



Samsung 170N

STINGMASTER

10V0Y

**\$551**



M8 MULTIMEDIA

KEYBOARD OPTICAL

WHEEL MOUSE COMBO

**\$29**



Intel P4 Celeron

2.4 GHz FPD4 478Pin

**\$99**



Brother HL-1435

(Single Color) Up to

1200 X 600 dpi

**\$204**



LG GSA-4081B

8xDVD-R, 4xDVD-R

DVD Burner

**\$95**



PC-3200 400MHz

512MB DDR

**\$108**



BenQ 5300U Flat bed

white blue 2000X4000PI

48BIT USB with Scan

**\$71**



TOSHIBA TECRA A4

P4M 2.4GHz 1.4 17" TFT 2000

Series COMBO DVD RW 2000

Wireless

**\$1769**



SD-10 DIGITAL

CAMERA

1.8 MP

**\$399**



Maxtor 6Y060L0

30GB 3.5"ATA133

7200rpm

**\$86**



ECS RADEON

8200SE 128MB TV

OUT (RETAIL)

**\$60**



Logitech G215

Quickcam Pro USB

mic D. Zoom

**\$109**



HP PSC 1210

ALL-IN-1 1210PPM

Scanner Printer

**\$142**



## Summer Sale

MAG 770PF 17" FLAT MONITOR

139

MAG 660PF 15" FLAT MONITOR

125

INTEL P4 2.6GHz 400MHz RETAIL

239

20GB 4K DVD-R DISK W/ QUALITY

15

MS WIRELESS KEY & MOUSE

99

ECS P4VMM2 P4 MOTHERBOARD

55

Build your system at our WWW

Athlon Pro 3100

LTWINS Athlon-One

128MB DDR

Maxtor 40GB 7200

LG 52X CDROM

Keyboard/Mouse w/Spk

**\$ 299**

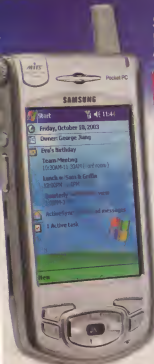
[www.compconex.com/summer-sale/17inch-monitors](http://www.compconex.com/summer-sale/17inch-monitors)

**WIN**

an mini pocket  
 digital camera from







## Samsung i700 Pocket PC Phone

By Douglas Adler

**TELLUS Mobility** • 1-800-888-8888 • [www.tellusmobility.com](http://www.tellusmobility.com)  
Phone: 10 contract - \$1,950, 1 year contract - \$1,000, 2 year contract - \$150, 3 year contract - \$300



case. That size and weight is comparable to other PDAs, but it is large for a phone. There is also the 'geek factor' of holding something that looks like a PDA up to your ear. People may think you are confused.

### Software

Bundled software includes Pocket PC versions of Word, Excel, Outlook, Internet Explorer, Windows Media Player, Microsoft Reader, Terminal Services Client and the all-important Software.

These built-in applications have the capability of syncing with your desktop applications if you set it up to transfer when you drop the phone into the USB cradle and connect to your computer. You need to install Microsoft ActiveSync to do this. This software comes with the install disks that accompany the i700 phone. It only runs on Windows, though there are third-party applications that allow you to sync to a Macintosh for a price.

### Screen

The touch sensitive TFT Display is bright and very usable, though when the backlight is off, it is almost impossible to read the screen. The manual claims that there are 65,536 colors and 240 x 320 pixels though I did not count all of them.

According to the manual, you are supposed to always use the stylus when touching the screen to avoid scratching or damage caused by other instruments. Extracting the thin

The Samsung i700 Pocket PC Phone Edition is an integrated phone, PDA and digital camera. The i700 has 64 MB RAM, and runs at 300 MHz. The version tested at runs on the TELUS Mobility's iX network. The one thing that sells you about this digital mobile phone is the size of it. At 133 mm x 71 mm x 20 mm, it is big, specially if left in the included leather portfolio case. The one alone weighs around 290 grams, and 350 grams in the

Continue on page 28







## Albatron FX5700 Ultra Continued from page 6

was the amount of thermal goop used on the GPU. Anyone who has ever done over-clocking knows that there is a middle ground for how much 'goop' to use. A thin layer, fully covering the GPU, but not so thick that it seeps out when the heat sink is placed on top is just right. Albatron simply used too much, remnants of which you can see in the picture of the GPU. Again, this is forgivable. Most manufacturers go heavy on the goop, or use those horrible thermal pads.

### Card Specifications

Model Number	FX5700 Ultra
Engine Clock Speed	475MHz
Memory Clock	450MHz
	(900MHz effective rate)
and	
Memory	128MB DDR-II
ACP version	8a
Serial Version	1
Manufacturing Process	0.15u
Memory Width	128 bit
Image Shader version	2.0+
Pixel Shader version	2.0+
Pixel/Clock	4
Outputs	VGA, DVI, S-video
Included accessories	Power CD, WinDVD
	Driver CD, Game Pack, full version of Duke Nukem
	Microsoft Project 5
	Video mini-cable cable 5'
	Video-to-Composite converter 5' mini-cable
	Composite cable



The 5700 Ultra's GPU

The RAM is Samsung's K4N26323AB-GC32 2.1ns RAM, which produces 900MHz data rate. Some other companies are using the 2.0ns, -GC320, which provides 1000MHz. Reports have floated

around that the 2.0ns RAM is in some of Albatron's 5700 ultra cards, though there is no way to tell by looking at the box which you are getting.

### Benchmark Setup:

S&S 746FX  
AMD XP2600 cooled to 2400  
1 x 40 GB Samsung HDD for OS and game installation  
1 x 100 GB WD HDD for Swap  
1 x 200 GB WD HDD for data recording (all HDDs on separate ATA channels)  
512 MB PC3700 RAM  
Creative Audigy  
Windows XP - all updates  
Latest Detonator drivers available were used

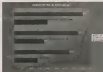
Note: With the release of DirectX 9 games, the test suite used by Techware Labs is being upgraded. Unfortunately, this is the first batch of cards to go through this suite, so comparisons for some tests will be lacking. However, our numbers from previous cards will be given where available. As we continue to phase in the test suite, our newer reviews will feature valid comparisons with other DirectX 9 cards.

### 3D Mark 2001SE

The 3d Mark 2001SE benchmark has been around for several years and provides a general insight as to the 3D power and performance a card is capable of. While both ATI and Nvidia have attempted to skirt corners on the test, the benchmark itself remains relatively trustworthy. It is also useful because the point system also attempts to weigh in the quality of the produced images in addition to the speed with which they are produced. Of course,

this gives some subjectivity to the test, but helps to standardize the quality of the image production.

The FX5700 does a much better job than its predecessor, jumping about 300 points in the broad test. Let's see how it handles anti-aliasing, a known killer of the previous revision of Nvidia cards.



Well, while the 5700 does hold up a bit better than the 5600 with anti-aliasing enabled, they are both fairly susceptible to slowdowns with this technology enabled.

### 3D Mark 2003

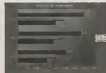
3D Mark 2003 has received lots of bad press for lacking any real gaming engine and therefore being a totally theoretical benchmark with no realistic implementations. The complaints made against it seem to be legitimate. However, it is one of the more advanced DirectX9 benchmarks available and does a good job of testing picture quality. We provide it here, noting that some doubt may be warranted.



Again, the 5700 performs well and is not impacted as greatly as its predecessor by AA and AF.

### Other Benchmarks

Unreal Tournament 2003 remains



Continue on page 20









## Revolutionizing the networking market

The Twin WAN product line from XINCOM provides a cost-effective solution for growing small to medium businesses (SMBs) who need to expand their networking services and remain competitive in an ever-expanding global market. With constricting budgets, implementing enterprise IT solutions to an existing infrastructure can be financially taxing and limit the SMB's means to expand their services to meet their customers' needs.

Expensive telecommunication leased lines, high bandwidth costs, and expanding networking services can dramatically increase a growing business's operational expenses and shrink profit margins. XINCOM's new addition to the Twin WAN family line will provide an SMB with a greater means to address their growing IT needs with a simplified solution.

XINCOM is proud to announce the newest addition to the Twin WAN product line that will revolutionize the networking market: the XC-DPG602.

Twin WAN DNS to IP Gateway. This new addition to the Twin WAN family provides advanced networking services most commonly found in enterprise class infrastructures at a fraction of the cost. XINCOM tailors these services with innovative features such as inbound/outbound load balancing and auto-failover. The XC-DPG602 functions as an authoritative DNS to IP Gateway and load balances inbound traffic requests to the respective IP address on a network infrastructure that hosts content on multiple servers. High throughput of inbound and outbound requests is managed by dual WAN ports that utilize the combined bandwidth of two separate concurrent broadband connections including DSL, Cable,

and/or T1.

Unique to the XC-DPG602 is the built-in authoritative domain name server that resolves a domain name to its respective IP addresses. This feature provides inbound requests to a configured server or device. Every Web, FTP or Email server requires an Authoritative Domain Name Server to route the domain name to the respective IP address or multiple IP addresses. Using the XC-DPG602 as an authoritative DNS gives a network administrator the ability to easily create and manage entire domain names.

The XC-DPG602 also provides the same signature features found in XINCOM's current product line which includes load balancing two Internet



Continue on page 27

## Neo I Code Software Ltd.

**High Volume, High Capacity  
eCommerce site our specialty**

### Recent ecommerce projects:

<http://www.bowmco.ca/acc.com>

<http://www.americanamedia.com>

\* Builders / Manufacturers / B to B Architects websites

\* Neo Code Software / LAMP Wholesale Software Development

**Stop Spam Now  
from \$5/user per month!**

- Stop over 98% of spam from reaching your network with MX Logic's multi-layer spam filtering and analysis.
- Significantly reduce your risk of a virus or worm infection with our double virus protection leveraging leading scanning engines.
- Reduce corporate liability and risk by automatically filtering suspect content and attachments before they reach your network.
- Dealers welcome!

**www.neocodesoftware.com**

#288 - 425 Camill St., Vancouver, BC, V6B 6E3 | [josh@neocodesoftware.com](mailto:josh@neocodesoftware.com) | Phone 604.638.0668







# Be the Judge...

PerformancePC

Canada's Best Estimate

## Summer 2004 Award Categories

- Best store display
- Best store location
- Best store / business hours
- Best customer service
- Best return policy
- Best shipping policy
- Best selection of software and games
- Best selection of accessories and peripherals
- Best selection of wireless products
- Best selection of notebooks / laptops
- Best selection of pre-built systems
- Best selection of brand name parts
- Best source for latest products
- Best prices on upgrade parts
- Best high-speed Internet Service Provider
- Best desktop Internet Service Provider
- Best web hosting provider
- Best Apple / Mac tech support
- Best selection of Apple / Mac products
- Best monthly special
- Best website to browse
- Best search engine
- Best on-line system builds
- Best shopping cart
- Best order tracking system
- Best store to shop for a gaming system
- Best store to shop for a multi-media system
- Best store to shop for a home office system
- Best store to shop for a sales system
- Best store to buy CPU
- Best store to buy RAM
- Best store to buy motherboards
- Best store to buy monitor
- Best store to buy video card
- Best store to buy computer books
- Best store to buy point & shoot digital camera
- Best store to buy Digital SLR Camera
- Best store to buy Printers
- Best store to buy Scanners
- Best store to buy Computer Speakers
- Best store to buy keyboard/mouse
- Best store to buy USB
- Best store to buy Apple / Mac accessories
- Best store to buy Apple / Mac upgrade

Some of the finest computer dealers are located right here in Greater Vancouver, and they deserve our recognition

Come and cast your vote to support your favorite dealers, and you'll have a chance to win a Xicom XC-DPG402 Twin Wan Router

Simply fax this completed form to 504 426 9555 OR

submit your vote online at [www.performancepc.ca/vote](http://www.performancepc.ca/vote)

- |                             |                              |                               |
|-----------------------------|------------------------------|-------------------------------|
| 1 Dell Computers            | 38 Drex                      | 75 New Type Computers         |
| 2 A Data Computer           | 39 Discovery Computers       | 76 NextGen Computers          |
| 3 A B Microsystem           | 40 E Global Computers        | 77 Plus-Age Computers         |
| 4 ALink                     | 41 Global Computers          | 78 PC Computers               |
| 5 Computers                 | 42 Epoch Computers           | 79 Phase I Systems            |
| 6 Aquatic Computers         | 43 New Tech computers        | 80 Performance Computers      |
| 7 Axi Computers             | 44 Horizon Computers         | 81 Photo Time Computers       |
| 8 Aquascan Computers        | 45 Edge Technology           | 82 Phoenix                    |
| 9 Axi computers             | 46 F & I computers           | 83 Rack Computers             |
| 10 Alden Computer           | 47 Fly Computer              | 84 Self-Subcomputers          |
| 11 Aris Monitor             | 48 Frontier Computers        | 85 SLACS Computers            |
| 12 Anasethi Computers       | 49 G & S Computers           | 86 Saxon Computers            |
| 13 AURIX Computers          | 50 Gamma Computers           | 87 Stream Computers           |
| 14 Am BPC Computers         | 51 Gae Computers             | 88 T & L Computers            |
| 15 A-Power Computers        | 52 Golden Tag Computer       | 89 The Tech Computers Systems |
| 16 ABC Computers            | 53 South Computers           | 90 Tele-A-Byte Computers      |
| 17 ADP Computers            | 54 Hall Price Computer Store | 91 Vantage Computers          |
| 18 Amer Internet            | 55 Hansen Computers          | 92 Tiger Beatz                |
| 19 BC Computers             | 56 ICI Computers             | 93 Touch Computers            |
| 20 Bortop Computers         | 57 Informa Technology        | 94 The Tech Computers         |
| 21 Bravery Computers        | 58 Inspira QA                | 95 Time Plus computers        |
| 22 B&N System Computers     | 59 Jackson Computers         | 96 Unique Personal Computers  |
| 23 Blue online Computers    | 60 JBC Computers             | 97 United Computers           |
| 24 Book World Inc           | 61 Libby Computers           | 98 Waco Computers             |
| 25 Business Pro Computers   | 62 Len computers             | 99 Neody Computers            |
| 26 Car Computers & More     | 63 UCF Advanced Technology   | 100 Neotech Computers         |
| 27 Cain Computer            | 64 Legend computers          | 101 N'S computers             |
| 28 Cascade Computers        | 65 Loco Computers            | 102 Nihon Bros computers      |
| 29 CC Computers             | 66 Mini Computer             | 103 Niagara Computers         |
| 30 City Computer            | 67 MIG Computers             | 104 Netlog Computer           |
| 31 Code II Computers        | 68 MOI Internet              | 105 Network Computers         |
| 32 Computable Computers     | 69 Monopoly Computers        | 106 Nucareid Computers        |
| 33 Compz 2000               | 70 More Concept              | 107 Worldwide Computers       |
| 34 Computer Systems         | 71 Monitor King              | 108 Simply Computing          |
| 35 Digital Computer         | 72 Mytek computers           | 109 Neo System                |
| 36 DSP Computers            | 73 NDI                       | 110 Discovery Mac Club        |
| 37 Cash Computers & Service | 74 RedLub                    |                               |

Name

Address

City

Province

Postal Code

E-mail

\* required to be mailed by post

# Win a Xicom XC-DPG402 Twin Wan Router

Visit [www.performancepc.ca/vote](http://www.performancepc.ca/vote) to enter the contest for your chance to win



# MEGAD DEALS

888.838.8829

## TigerDirect.ca HOT DEALS!

Don't Miss Computer Deals, Peripherals, Software

**EyeQ 3340Z 3.1 Megapixel**

- 3.1 Megapixel • 1/4" Super Pixel
- 40 Digital Zoom • 40 Digital White
- 1.3" TFT LCD



**\$166<sup>99</sup>**

MSRP: \$200

**4X DVD+RW Drive**

- 4x24x DVD+RW
- 8x DVD+R • 16x DVD+R
- 4x DVD+R • 16x DVD+R
- 4x DVD+R • 16x DVD+R



**\$76<sup>99</sup>**

MSRP: \$90

**8-in-1 Media Card Reader**

- 8-in-1 Media Card Reader
- 8-in-1 Media Card Reader
- 8-in-1 Media Card Reader
- 8-in-1 Media Card Reader



**\$43<sup>99</sup>**

MSRP: \$50

**802.11b Wireless PC Card**

- 802.11b Wireless
- 802.11b Wireless
- 802.11b Wireless
- 802.11b Wireless



**\$26<sup>99</sup>**

MSRP: \$30

**Benq PB6200 Projector**

- 1000 Lumens
- 1000 Lumens
- 1000 Lumens
- 1000 Lumens



**\$2174<sup>99</sup>**

MSRP: \$2500

**Systemax Intel Pentium 4 2.6GHz Notebook**

- Intel Pentium 4 2.6GHz Processor
- 256MB/20GB
- CD-RW/DVD Combo
- 15-INCH TFT



**\$1449<sup>99</sup>**

MSRP: \$1500

**D-Link Router**

- D-Link Router
- D-Link Router
- D-Link Router
- D-Link Router



**\$33<sup>99</sup>**

MSRP: \$40

**Sceptre X99 19" LCD Monitor**

- 19" LCD Monitor
- 19" LCD Monitor
- 19" LCD Monitor
- 19" LCD Monitor



**\$739<sup>99</sup>**

MSRP: \$800

**Systemax Intel Pentium 4**

- Intel Pentium 4 Processor
- 256MB/20GB
- CD-RW/DVD Combo
- 15-INCH TFT



**\$1667<sup>99</sup>**

MSRP: \$1700

**EnergyStar 1000VA UPS**

- 1000VA UPS
- 1000VA UPS
- 1000VA UPS
- 1000VA UPS



**\$115<sup>99</sup>**

MSRP: \$120

**Samsung 150W 15" LCD**

- 150W LCD
- 150W LCD
- 150W LCD
- 150W LCD



**\$467<sup>99</sup>**

MSRP: \$500

**ATI FX 5200 AGP Video Card**

- ATI FX 5200 AGP
- ATI FX 5200 AGP
- ATI FX 5200 AGP
- ATI FX 5200 AGP



**\$94<sup>99</sup>**

MSRP: \$100

**ULTRA 2-in-1 MP3 Player/120MB Flash Drive**

- 2-in-1 MP3 Player
- 120MB Flash Drive
- 2-in-1 MP3 Player
- 120MB Flash Drive



**\$101<sup>99</sup>**

MSRP: \$110

**EPSON 4-in-1 Inkjet Printer**

- 4-in-1 Inkjet Printer
- 4-in-1 Inkjet Printer
- 4-in-1 Inkjet Printer
- 4-in-1 Inkjet Printer



**\$275<sup>99</sup>**

MSRP: \$300

**888.838.8829**

**BUY TODAY... IT SHIPS TODAY!**

**COMPUTERS, COMPONENTS, AND MORE!**

**OR SHOP ONLINE: www.tigerdirect.ca/s REGISTER NOW FOR OUR E-MAIL DEALS NEWSLETTER!**



## Spring 2004

performancePC

Award of Excellence

## Award Winners

where applicable, the top 3 results by sales count are listed.

Best store display	Frontier Computer	Netlink Computers (NCX)	Antec Computer Technology
Best store location	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best store / business hours	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best customer service	Frontier Computer	Netlink Computers (NCX)	A-Power Computer
Best return policy	Netlink Computers (NCX)	Frontier Computer	A-Power Computer
Best shipping policy	Netlink Computers (NCX)	Frontier Computer	Tiger Direct
Best selection of software and games	Netlink Computers (NCX)	SJ Computers	Frontier Computer
Best selection of accessories and peripherals	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best selection of wireless products	Netlink Computers (NCX)	Frontier Computer	Micro Concept
Best selection of notebooks / laptops	Frontier Computer	Netlink Computers (NCX)	Micro Concept
Best selection of pre-built systems	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best selection of boxed spare parts	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best source for latest products	Netlink Computers (NCX)	ATC Computer	Reseller Computer
Best price on upgrade parts	ATC Computer	Netlink Computers (NCX)	A-Power Computer
Best high-speed Internet Service Provider	Blue	Teles	Symphony
Best dial-up Internet Service Provider	Fiber	ADL	RBI
Best web hosting provider	Fiber	Shaw	Futura
Best Apple / Mac tech support	Mac Station	Simply Computing	Discount Mac Club
Best selection of Apple / Mac products	Mac Station	Simply Computing	Discount Mac Club
Best buy on Apple / Mac accessories	Mac Station	Discount Mac Club	Simply Computing
Best buy on Apple / Mac upgrades	Mac Station	Discount Mac Club	Simply Computing
Best buy on computer books	Full Time Computer Books	Book Warehouse	Chapters
Best monthly special	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best website to browse	Netlink Computers (NCX)	Frontier Computer	Tiger Direct
Best search engine	Netlink Computers (NCX)	Frontier Computer	Tiger Direct
Best online system builder	Netlink Computers (NCX)	Frontier Computer	A-Power Computer
Best shopping cart	Netlink Computers (NCX)	Frontier Computer	ATC Computer
Best order tracking system	Netlink Computers (NCX)	Mac Station	Frontier Computer
Best store to shop for a gaming system	Netlink Computers (NCX)	Frontier Computer	S J Computers
Best store to shop for a mid-range system	Netlink Computers (NCX)	Frontier Computer	A-Power Computer
Best store to shop for a home office system	Netlink Computers (NCX)	Frontier Computer	A-Power Computer
Best store to shop for a server system	ATC Computer	Netlink Computers (NCX)	A-Power Computer
Best store to buy on CPU	Mac n' Computers (NCX)	Mr. Tech	Genetic Computers
Best store to buy on RAM	Mac n' Computers (NCX)	Frontier Computer	Netlink Computers (NCX)
Best store to buy on motherboard	Netlink Computers (NCX)	Antec Computer	Frontier Computer
Best store to buy on monitor	Apex Computer	Netlink Computers (NCX)	Frontier Computer
Best store to buy on video card	Frontier Computer	Netlink Computers (NCX)	Antec Computer
Best store to buy on good and cheap digital camera	Netlink Computers (NCX)	A-Power Computer	Futura Shop
Best store to buy on Digital SLR Camera	Future Shop	Netlink Computers (NCX)	London Drugs
Best store to buy on mobile phones	Future	Future Shop	Polo
Best store to buy on Printers	Future Shop	ATC Computer	Netlink Computers (NCX)
Best store to buy on Scanners	Netlink Computers (NCX)	Future Shop	Staples
Best store to buy on Computer Speakers	Future Shop	Antec Computer	Netlink Computers (NCX)
Best buy on keyboard/mouse	Future Shop	Netlink Computers (NCX)	Frontier Computer
Best buy on LCD	Future	Netlink Computers (NCX)	Antec Computer

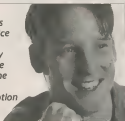


Looking for the *best* hands-on education in *systems, networking, and software development?*  
Want to find one of the most *flexible* programs available?

**Look no further.**

**UCFV has got it all,  
and our students get jobs!**

*UCFV  
blends  
practice  
with  
theory  
to give  
you the  
best  
education*



*The University College of the Fraser Valley  
Computer Information Systems program  
blends practice with theory, and combines  
state-of-the-art learning environments with  
on-site co-op education options. We offer:*

- Software Development
- User Interface Design
- Advanced Networking
- System Administration
- Object-Oriented Design
- Web Programming
- Database Administration
- Business Skills
- Human Factors
- Team Building
- Computer Security
- Presentation Skills

*We also offer Continuing Studies courses in home networking,  
Linux, and CISCO CCNA and CCNP. See [www.ucfv.ca/cis](http://www.ucfv.ca/cis) for  
details. Coming soon: CISCO Security course.*

**Call 604-854-4589**

**Visit [www.ucfv.ca/cis](http://www.ucfv.ca/cis)**

*Have a lot of experience  
and want credit for it?*



*We have the best hands-on education in  
systems, networking, and software development*

- Modern labs with multiple drives, Linux, Novell, CISCO, Oracle, Windows, and more.
- State-of-the-art advanced networking lab.

*A highly flexible program*

- Certificate, diploma, and four-year degree programs ladder into each other so you don't need to commit to a long course of study to gain a credential.
- Daytime and evening courses let you continue working while you study.
- September and January intakes mean you to start any time.
- Our accelerated Spring semester allows you to finish your program sooner!

*Credit for prior experience*

- We offer the most flexible prior-learning assessment and generous credit-transfer approval available anywhere.

*UCFV is located only 40 minutes from Vancouver  
in affordable Abbotsford at the centre of a huge  
variety of outdoor and cultural activities.*



## Publisher's Pick

## TOP TEN BOOK LIST



1

ISBN: 0764576837

Title: Office 2003 All-in-One Desk Reference for Dummies

Author: Peter Novelli

Publisher: John Wiley &amp; Sons



2

ISBN: 0735712001

Title: Beginning Math and Physics for Game Programmers/C#

Author: Wendy Suttles

Publisher: New Riders



3

ISBN: 0696080475

Title: Dancing Bandoot

Author: Bill Miller

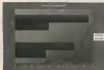
Publisher: ITeally's Associates, Inc./Lulu.com

Rank	ISBN	Title	Author	Publisher
4	0735740298	Bliss: The Magic of iOS	Eric A. Meyer	New Riders
5	0321388709	Dr. Evil's Apple Training Series	Mary Plummer	Pragmatic Press
6	0735740291	Shooting Digital Pictures	Dana M. Howard	Microsoft Press
7	0735740294	Photoshop Elements for Photographers with DVD	Scott Kelly, Steve Davis	New Riders
8	0735740293	iDesign CS Color Tips	Scott Kelly, Terry White	New Riders
9	0596020438	Linux Unleashed	Peter Wenz, Edd Duerbeck	O'Reilly & Associates
10	0672234576	Auto-Space Tool Kit/C#	Paul Vukob, Clarke Scott	McGraw-Hill Osborne Media

### Albatron FX5700 Ultra

Continued from page 12

one of the most visually stunning first-person shooters out there. It continues to be a solid game for benchmarking video cards.



The 5700 has completely sufficient performance, even with AA and AF enabled. This benchmark was taken at 1024x768, so moving to a much higher resolution with AA and AF enabled is advised against, as parts of the games will slow down to unacceptable levels. However, with AA and AF disabled, the card should scale nicely to higher resolutions.



The card produces decent levels of performance in all of the above benchmarks. However, Halo must be run at the lower levels in order to keep frame rates to an acceptable level at a times, this may be indicative of performance in fast-released games.

### Conclusion

When the FX5600 cards came out, we left with a sour taste, as were our previous. The card did not offer significant improvements over previous Nvidia offerings, and at the price ranges, ATI was embarrassing. Nvidia insinuates performance concerns. Drivers are another issue. Although ATI has ramped up the efforts to improve their drivers, I do have machines that consistently are solely due to the ATI driver, regardless of which revision I use. Nvidia has been extremely reliable in this end, so if you are wanting stability or performance, I would not hesitate.

Continue on page 12







## Albatron FX5700 Ultra

Continued from page 20

suggest the 5700 over the numbers I have seen from ATI's current offering, the 9600XT.

However, most looking at video cards like these are unconcerned about rock-solid stability and are looking for performance coupled with enough stability to play games for 12 solid hours or so and then a reboot. The 5700 will entice these gamers, however, the AA and AP performance on the FX cards still suffers. ATI has grown to become Nvidia's equal, and the recent series of cards shows this. However, Nvidia is not giving up and has offered a card which is, by all accounts, on par with the 9600XT. Held in isolation, we congratulate Nvidia for producing a card worthy of their long-prized name.



Did I mention a glow as early as the blue when powered on?

## Mac Station

Apple is a member

### Impress for less.

Buy a new Mac and get a Lexmark X1150 all-in-one printer for only \$49.<sup>+</sup>

OR... get \$40 back towards any Lexmark all-in-one printer with a Lexmark Supported Retail Price (SRP) of \$100 or greater.

<sup>+</sup>While stock available. Offer expires June 30, 2004.

Back 94  
Price Starting at \$249.99

**Lexmark X1150**  
All-in-one printer, scanner, copier  
Up to 9000 x 1,200 dpi color printing  
optical scan resolution of 600 x 1,200



Vancouver's  
Best Computer  
Company  
2003  
For  
Customer Service

Shop online: [www.macstation.com](http://www.macstation.com)

1-800-828-2224 | 1-800-828-2224 (toll-free) | 1-800-828-2224 (toll-free)  
1074 1000 Highway 101, #2000 Langley, BC V4L 1Y7 Canada



©2004 Mac Station Inc. All rights reserved. Mac Station is a registered trademark of Mac Station Inc.

Albatron has taken Nvidia's reference card in a great direction. They provide high quality, though not industry best, and RAM with a great cooling solution which allows for great over-clocking performance and stability. ▀

## Samsung A600

Continued from page 8

As for reception and quality of features, this is a very sturdy phone. It is well built. I had no problems with either reception or background noise. One of the biggest disadvantages that I noticed on this phone is its incapability to sync with any other computer or device. In my previous phone I have at least 200 phone numbers. The only way to migrate these phone numbers into the A-600 would be to manually enter them. The A-600 does not use a SIM card, so it is not possible to transfer contacts via SIM. The memory capacity of the A-600 is enough to hold 12 high-resolution pictures. Again, the only way to take the pictures out of the phone is to email them via Telus web services. I found that at sunlight, the screen is very hard to see, but indoors, the screen is very clear and bright. The quality of the pictures is as good as you can expect from a 330k camera. Being able to send pictures across the world is a lot of fun, but I find the process too long. It takes about 25 keystrokes to send a simple picture with no audio or text attachments or one recipient in the address book. ▀



### PROS

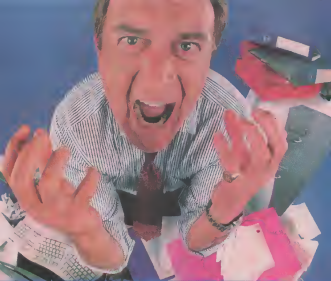
Good reception  
Downloadable ring tones and games (\$150 per song and \$4.99 per game)  
1X Dual Band In mode 1.8G to 900 MHz CDMA / 900MHz AMPS

### CONS

No infrared capabilities  
No Bluetooth capabilities  
No available cables for synchronizing with a desktop

The phone becomes very hot after only 10 minutes of talking.  
Takes 25 keystrokes to send one picture or one recipient.  
Short battery life (approx 3 hours talk time)





## Back-up or Panic? Your choice



Acronis True Image 7.0  
Complete disk imaging and  
disaster recovery solution

### TOP 5 REASONS WHY YOU CAN'T AFFORD TO MISS THIS SPECIAL ACRONIS TRUE IMAGE OFFER:

- Stay productive. Keep working in Windows while you image your disk.
- Easy to Use: Wizards make Acronis True Image the quickest and simplest backup solution yet for everyone.
- Image your system partition with open Windows files.
- Restore your entire hard disk, including preferences and upgrades, in minutes.
- Deploy the same hard disk onto another PC quickly and easily.



Compute With Confidence

[www.acronis.com](http://www.acronis.com)



"The most convenient  
imaging  
software we've  
seen to date..."

CN-01

**Neo Code Software**  
Wholesale Web Development

<http://www.neoicode.com>

4025 - 425 Canal St. Vancouver

Toll Free 1.888.748.0000

Tel 604.696.0000 Fax 604.696.0000



# Video Games As Art

Mike Corrigan

Video games, like comic books, are a form of creative expression once considered frivolous, but now increasingly appreciated for their cultural impact. As with other art forms, video games are used to educate, to show new possibilities, to model and comment on reality, and, most of all, to escape the present. The interactive quality of video games, unlike other forms of art, heightens their impact. This has led to questioning where the art form will lead and how and if its impact should be managed by society. The issues of video game violence and the potential for virtual reality, for example, have become increasingly mainstream concerns.

## From Blips to Beauty

Early video games, hampered by the technology of the time, had a limited palette with which to express their creator's vision. The audience for early video games consisted mostly of youth, who were the only demographic open-minded enough to interpret abstract graphics and weird sounds as an alternate reality. Contemporary video games, however, reach a broader spectrum of the populace. Today's technology transcends the limits of the past, offering the potential of rich, immersive experiences that have the potential to appeal to all demographics.

## Ubiquity

The ubiquity of home computers and Internet access provides a relatively cheap and accessible delivery channel benefiting hobbyists and big budget producers alike. Hobbyists experiment and push the envelope in gaming design possibilities while big-budget producers, encouraged by the economic success of videogames, make efforts to reach new markets, attempting to bridge gender and age barriers. As people are born into a world where video games are an established part of culture, the barriers are naturally eroding. As the age and number of those who grew up playing video games increases, will their evolving tastes be catered to? Will there at some point exist video games marketed towards senior citizens?

On home computers, on cell phones, and on portable devices video games can be found almost anywhere. Video game culture is even finding its way into physical reality via art projects such as *Space Invaders* (<http://www.space-invaders.com/>).

## Strange Games Indeed

From the strange to the sublime, the medium is evolving. The classic graphic adventure game "Myst" (<http://www.ageofmyst.com/>) proved that games that go beyond formula could

have market potential. Its success paved the way for artfully done commercial releases that immerse the player in evocative, rich worlds.

"Robot Finds Kitten" (<http://robotfindskitten.org/>) conversely, shows that even the most humble programmer can create culturally resonant video game art. This "Zoo simulation" places the player in a strange world with considerably low production values. Ported to over 15 different platforms, the game centers around the existential angst of a lonely robot. This robot is faced with the desperate need to find among a matrix of cruelly useless objects, its beloved kitten. The game play is simple and the graphics are stark, but the effect is heart wrenching. There are five things that capture the pain of existence as much as playing "Robot Finds Kitten" on a Palm P100 while far away from home, waiting for a bus to carry one home to an uncertain future. ■

Mike Corrigan, aka Red Fang Shaver is a Vancouver composer/musician who has experimented with home computer-based production for nearly a decade. He enjoys skewing unsuspecting forms of music. His work can be heard at [http://www.newmusiccanada.com/people/corrigan/cfn?Band\\_Job=4005](http://www.newmusiccanada.com/people/corrigan/cfn?Band_Job=4005)



## Linux Vigilant POS Single Store or Multi-Stores

We provide complete setup and training,  
Wireless / LAN / WAN / Windows / Linux / POS

## Free and Stable Linux Operating System

### Why Inventory Control System ?

- Tracking Costs ( Guaranteed Gross Profit Margin )
- Increased Security
- Reduced Thefts
- Increased Sales
- CRM ( Customer Profiles )
- Instant Profit and Loss
- Full Complete Accounting Included/Optional

Phone for Demo Tel: 604-582-8722 / Cell 778-889-8722 Micro-press Computer Assistance







Want to Buy, Sell, Trade or Barter.

Visit **www.performancepccanada.com**  
for your general classified ads in a variety of categories

## A FREE » SERVICE

to the public to place  
and browse listings  
and announcements  
online



## 3 Simple Steps



1. Choose your desired category and sub-category

2. Complete the online form, and press "Submit"



3. Your message will automatically be listed on the website



# XINCOM - Revolutionizing the networking market

Continued from page 14

connections and auto-failover for redundancy. The load balancing feature combines the bandwidth for two separate concurrent broadband connections. This new Gateway will accept any two broadband connections in any combination whether it is DSL, Cable, and/or T1 leased lines. Expanding your bandwidth for a growing business will ease the problem of network congestion. When one internet connection caps its bandwidth, the XC-DPG602 will efficiently utilize the available bandwidth from the second internet connection.

If an SMB's only Internet connection fails, there is no insurance or lost profit and productivity for every second of downtime. The Auto-failover feature of the XC-DPG602 provides true redundant connectivity to the Internet when using two separate ISP services. In the event that one ISP goes down, the XC-DPG602 auto-fails over to the other ISP service. Redundancy to the Internet provides a truly uninterrupted connection for a business's customers while maintaining prime and productivity for its employees. These signature features provide cost-effective bandwidth solutions to expensive leased telecommunication lines for businesses that use the Internet as the primary tool for commerce.

XINCOM incorporates the same robust features of the current Twin WAN product line into the XC-DPG602 including Network Address Translation (NAT), a Stateful Packet Inspection (SPI) Firewall, DHCP server, Access Filters, and VPN pass-through to secure a business's network services. The Quality of Service (QoS) feature schedules and directs a network's traffic to take advantage of available bandwidth. The XC-DPG602's UPnP support can automatically open and close ports opened by certain software applications. With increased

bandwidth and redundant connectivity to the Internet provides any SMB cost-effective bandwidth solutions.

XINCOM Corporation is an award winning developer and manufacturer of broadband networking, digital electronics, and data communications. Our product line and services are designed to offer solid and secure solutions for the digital home, Small Office/Home Office (SOHO), Small to Medium Business (SMB), and Workgroup to Enterprise environments.

XINCOM's broadband products are the highest quality, most durably constructed routers on the market today. We strive to manufacture the latest technology to be compatible with and surpass today's demanding and ever changing Broadband industry. Our flexible management structure allows XINCOM to respond to the market demand quickly. XINCOM's goal is to be the best at what it does and to always be on the cutting edge of technology. ▶

Advantages Come for Broadband Services in US dollars

Broadband Service	Bandwidth	Cost
DSL	15 Mb downstream 1 Mb upstream	\$50 - 80
Cable	4 Mb downstream 1 Mb upstream	\$50 - 80
T1 Leased Lines	15 Mb downstream 15 Mb upstream	\$800 - 900

Broadband service costs represented here is an approximated value

Saving Costs with the Twin WAN product line in US dollars

Combined Broadband Services as T1	Network Gateway	Cost
DSL + DSL	Twins WAN Family	\$100 - 150
DSL + Cable	Twins WAN Family	\$100 - 140
Cable + Cable	Twins WAN Family	\$100 - 120
T1	Any Single WAN Router	\$800 - 900

Saving costs represented here are approximated values

Feature	XC-DPG602	XC-DPG602	XC-DPG602	XC-DPG602
CPU	ARM 9260	ARM 9260	ARM 9260	ARM 9260
RAM	512K	1024K	1024K	1024K
Flash Memory	512K	1024K	1024K	1024K
WAN Ports	2	2	2	2
LAN Ports	4	4	4	4
Throughput	128Mbps	64Mbps	64Mbps	64Mbps
Sessions	15,000	100,000	100,000	100,000
Inbound Load Balancing	-	-	-	✓
Outbound Load Balancing	✓	✓	✓	✓
SPI Firewall	✓	✓	✓	✓
UPnP	-	-	✓	✓
DoS	-	✓	✓	✓
VPN	-	-	✓	-
Price	\$299 (Price Drop)	\$299	\$349	\$399

Prices are in US dollars



## Samsung i700

Continued from page 10

style from it's home at the bottom of the unit isn't likely to happen when you are fumbling to catch incoming calls, or trying to dial while holding a latte and driving.

## Battery Life

The battery life seems very good. Hours and hours of playing Solitaire games went into verifying this. The manual claims talk time of up to 4 hours and standby time of up to 240 hours.

## Connecting to the Web

The email, because it is less demanding of resources, seemed to work well. Web surfing is pretty painful on the 'high speed' 1X network ('speeds of up to 40-60 kbps', think 28.8 modem speeds). Terminal Server was almost usable. If you are serious about using Terminal Server, or web surfing, I would recommend that you get a wireless card for the built-in SD card slot and use it on 802.11 networks where available, rather than through the telephone company.

## Using the Phone

Turning on the PDA does not accessibly turn the phone on. You have to tap on an on-screen icon to turn on the phone. I also had trouble with this toggle, as the option would not stay on the screen long enough to select it. It would just flash by, leaving me wondering what I had just seen.

For some reason the default setting

when you turn on the unit is to display the owner information, as opposed to going straight to the phone, or the PDA screen.

The speaker-phone was just OK, nothing spectacular, but a nice feature. The fax option only allows incoming faxes, not outbound, which is a bit of a disappointment. It would be great to be able to create a Word document and fax it directly from this unit. Not only will it not send, it can't actually receive a fax on it's own, you have to connect to a computer to do this.

## Camera, Voice Recorder, MP3 Player

There is an integrated rotating VGA camera with a variety of exposure settings and a timer, though no flash. I did a number of test photos at the maximum 640 x 480 resolution and the feedback from friends was that they were 'pretty crappy', though this might be more of a reflection of my photography skills than the camera.

The i700 also has a voice recorder built-in. Handy for those crucial 'memo-to-self' moments. The recording quality is not great, unless you talk to it like a phone and the interface leaves a little to be desired, but it works.

You can play MP3s on the unit using the Windows Media Player, which lacks any conventional play-list features. No doubt there are better applications for doing this, just waiting

to be downloaded. Sorry from the built-in speaker was a little crackly, but presumably it sounds good coming through headphones. I couldn't test this because the device unit arrived without the

## Connectivity Charges

The deal breaker for most of these 'smart phones' is the cost of internet connectivity. The cell phone screen

companies are still premium pricing internet access. Email is the notable exception, but if you use this phone to surf the web, like my kids use the computer, you can easily spend over \$100 a month just on data access. A very careful which plan you select: you sign up for the low end \$5 a month plan, and then by mistake download 100 megabytes, you are looking at \$1,500 phone bill at the high end \$13/megabyte charge.

## Conclusion

The i700, unlike the smaller thinner and cheaper PalmOne Treo, has no built-in keypad. It is big, heavy, expensive to buy, expensive to run and ultimately geeky. No doubt it is asking for the right person, but it does not seem to be a mainstream product. You need to run Windows Pocket PC applications and you only want carry one device, and you are on company expense account, under one of these cats right away. Everyone else should just keep waiting. ■



**Dealers Welcome!**

- Compatible Cartridges
- Cleaning Cartridges
- Laser Toner
- Inkjet Refill Kits
- Printer Ribbons
- Thermal Ribbons
- Inkjet Photo Paper

**inkjetmart**  
www.inkjetmart.com

**Special Promotion** (June 10-17, 2004)

Buy \$20 or more and receive

**A Free Gift!** Instant Retail Service

(12 CD holder case or a wheel mouse)

Visit [www.inkjetmart.com](http://www.inkjetmart.com) for promotion details

Toll Free: **1-888-2833-INK(465)**

Manchester • Richmond • Coquitlam • Scarborough







## ALPHACOM

**A-Power Computer (p.22)**  
3094 East Hastings St.  
(804) 538-0786

**Mac Station (p.22)**  
203A - 2430 Bayview Ave  
(804) 428-6234  
www.macstation.com

**Compu 2000**  
118 - 2980 Herring Ave  
(804) 436-2131

**Elittech Computers (p.26)**  
1823 - 4530 Kingsway  
(804) 453-8210  
www.elittechcomputers.com  
sales@elittechcomputers.com

**NGK.com (p.2, 32)**  
5008 Kingsway  
(804) 461-8882  
www.ngk.com  
sales@ngk.com

**A-Link Computer**  
(804) 458-6033

**Alpha Computers**  
(804) 476-8933

**Big Planet Computers**  
(804) 391-6952

**Boston Computers**  
(804) 433-6980

**Leitch Computers**  
(804) 676-7170

## ELITECH

**Elittech Computers (p.26)**  
201-453 North Rd  
(804) 501-5808  
www.elittechcomputers.com  
sales@elittechcomputers.com

**Ever Tech Computers**  
(804) 850-4727

**F-X Computers**  
(804) 838-3713

**Mytech Computers Ltd**  
(804) 548-7541

**One Plus Computers Inc**  
(804) 938-8171

**Winward Computers**  
(804) 587-0333

## ELITECH

**Elittech Computers**  
(804) 501-5808

## ELITECH

**A-OP Computers**  
(804) 474-9133

**Blue Collar Computers**  
(804) 853-6830  
**DATA Technology (PC)**  
3334 68th Ave  
(804) 858-5215

**Dave's Computers**  
(804) 504-3887

**Winter Grove Computers**  
(804) 698-3873

## ELITECH

**Prime Time Computers**  
(804) 458-6855

**Technique Computers**  
(804) 438-0317

**Mac Station (p.22)**  
12355 Loughland Highway  
(804) 460-0880  
www.macstation.com

## ELITECH

**Art & PC Computer**  
(804) 548-8272

**Ben R. Byers Computers**  
(804) 527-1318

**First-A-Hand Computer Services**  
(804) 551-8552

## ELITECH

**Assault Data Computers**  
(804) 584-0247

**Computers Depot**  
(804) 682-8800

**ICS Computers**  
(804) 584-4603

**W S Computers**  
(804) 588-7583

## ELITECH

**A Link Computer**  
118 2980 Herring Hwy  
(804) 458-6033

**Leitch Computers**  
(804) 676-7170

**One Plus Computers**  
(804) 938-8171

**Ever Tech Computers**  
(804) 850-4727

**Mytech Computers**  
(804) 548-7541

**Winward Computers**  
(804) 587-0333

**A-Power Computer (p.22)**  
#101 11201 Ridgeway Rd  
(804) 273-8888

**A-Link Computer System**  
113 - 13111 Ridgeway Rd  
(804) 274-9473

**Elittech Computers (p.26)**  
180 - 2358 W. 5th Rd  
(804) 583 - 8323  
www.elittechcomputers.com  
sales@elittech.com

**Informatics Technology Inc**  
108 11420 Ridgeway Rd  
(804) 274-3181

**Crusader Computer Store**  
(804) 383-9498

**CE Computer Outlet**  
(804) 276-2633

**City Computer Systems**  
#100 17800 Circle Place  
(804) 270-0747

**QCE Technologies**  
115-4111 W. 5th Rd  
(804) 821-1108

**Discovery Computers**  
(804) 241-0412

**IC3 Computer**  
1780-4311 Haveridge Way  
(804) 273-1008

**Jazzcom Computers Inc**  
(804) 275-9832

**Jensen Electronics**  
2804-2888 Canton Rd  
(804) 274-0368

**JMS Computers Inc**  
(804) 273-3886

**LCF Advanced Technology Ltd**  
(804) 383-8828

**Max Computers Inc**  
(804) 273-7611

**MDI Imports Inc**  
#108 2808 Simpson St  
(804) 284-1800

**Johnson Electronics (p.22)**  
#238 13880 Canton Rd  
(804) 308-1708

**PC Computers**  
(804) 273-8832

**Samco Computer (p.16)**  
Unit 140 4880 N. 3rd Rd  
(804) 777-6181  
www.samco.com  
info@samco.com

**T L O Computers Inc**  
(804) 273-8333

**Top Tech Computers**  
(804) 267-8239

**Take-A-Bite Computers**  
(804) 271-2222

**Green Personal Computers**  
(804) 448-8837

## ELITECH

**Golden Top Imports of**  
1823-4530 St.  
(804) 588-0338

**ADP Computer**  
10880 138th St  
(804) 273-4338

**Art Computer**  
(804) 548-8272

**Arachid Computers**  
(804) 561-4333

**PC Alley Computers**  
(804) 587-5767

**Scenic Computer Ltd**  
(804) 528-8545

**MBS Computers**  
#170 2710-1328th Street  
(804) 573-8722

**Tech Tech Computers Ltd**  
(804) 534-4730

## WINWARD

**Art Computer**  
45 E. Broadway  
(804) 575-8545

**Cells Computer**  
3893 Grandview Hwy  
(804) 437-5531

**ESP Computer (p.20)**  
3553 Kingsway  
(804) 438-9100  
www.espcomputer.com  
espc@espcomputer.com

**Global (p.22)**  
#105 - 2848 Main Street  
(804) 872-8270  
www.globalatlantic.com  
info@globalatlantic.com

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Neogen Computers**  
5 - 118 W. Broadway  
(804) 770-6538

**Info/Access.com**  
P.O. Box 100 W. 10th St.  
(804) 581-3733

**Power Canada**  
5075 Sherbrook Street  
(804) 527-1758

**Lightpoint (p.28)**  
1888-3533-466  
www.lightpoint.com

**Lightpoint Internet (p.5)**  
(804) 423-1758  
www.lightpoint.ca  
info@lightpoint.ca

**Mac Station (p.22)**  
#2 - 1108 Homer Street  
(804) 808-8227  
www.macstation.com

**Neosoft Software (p.14)**  
288-426 Carroll St  
(804) 638-8888  
www.neosoftsoftware.com  
sales@neosoftsoftware.com

**Minnesota Computers 24**  
(804) 583-1722

**SES Tech Services Inc**  
www.distributors.com  
super@sesdistributors.com

**Skyway West Business**  
**Internet Services (p.4)**  
(804) 482-1325  
www.skywaywest.com  
sales@skywaywest.com

**Computer Computers Inc**  
(804) 323-0127

**Legend Computers**  
(804) 273-8538

**Cash Computers & Service**  
(804) 438-4235

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255

**Verint Computers**  
(804) 793-0255



# Get IT.

[www.langara.bc.ca](http://www.langara.bc.ca)

## Summer Intensive Programs

Register now at Continuing Studies:

**Web Publisher Certificate**

July 5 to July 23

**Web Developer Certificate**

August 9 to 31

**Solution Developer Certificate**

August 16 to Sept 10

Graduate with a fully functional website or application

## Computer Science

**Professional Computer Science & Technology Program (PCST)**

**Applied Computer Science & Technology Program (ACST)**

**Internet/Web Computing & Software Development Program (ICSD)**

Register now for September

## Computer Information Systems

A two-year diploma program

- Hands-on Linux & Windows 2000 networking & security
- Business systems analysis & design/e-commerce
- Database design & administration

Information session:

Room 8145

Wednesday, June 23, 5:30 - 6:30 pm

Langara College recognizes the importance of digital literacy in the modern workplace.

Select from hundreds of digital based professional development classes, career programs, and university transfers.

Langara College  
choose a program that is  
digital.

Call or e-mail now.

604.683.5945

[Digital@langara.bc.ca](mailto:Digital@langara.bc.ca)



LANGARA  
COLLEGE



New Technology. New Career.





Amazing Quality  
Outstanding Performance  
Excellent Value

## PC Builder

Built EXACTLY the way you want it



**FREE  
NEXT DAY  
SHIPPING**  
IN GREATER VANCOUVER

On orders shipped over \$200 purchase price  
Mon-Fri, 9AM-5PM

\*Free shipping does not include shipping to the United States. For shipping to the United States, please call 1-800-461-4614. For shipping to the United States, please call 1-800-461-4614. For shipping to the United States, please call 1-800-461-4614.

NCIX PC systems. The 4 Minute in performance.

**Value Gamer**  
Intel® Pentium® 4 Processor  
\$668

- Intel® Pentium® 4 Processor
- 1GB DDR400 Memory
- 80GB SATA Hard Drive
- NVIDIA GeForce 7000 Graphics Card
- DVD-ROM Drive
- Windows XP Home Edition
- 3 Year Parts & Labor Warranty

\*Free shipping to the United States

**PC Builder Intel® Extreme**  
Intel® Pentium® 4 Processor  
\$1828

- Intel® Pentium® 4 Processor
- 2GB DDR400 Memory
- 160GB SATA Hard Drive
- NVIDIA GeForce 7000 Graphics Card
- DVD-ROM Drive
- Windows XP Home Edition
- 3 Year Parts & Labor Warranty

Great value. Great Performance. Configured NCIX PC systems.

**Value Gamer**  
Intel® Pentium® 4 Processor

\$408

- Intel® Pentium® 4 Processor
- 1GB DDR400 Memory
- 80GB SATA Hard Drive
- NVIDIA GeForce 7000 Graphics Card
- DVD-ROM Drive
- Windows XP Home Edition
- 3 Year Parts & Labor Warranty

**PC Builder Intel® Performance**  
Intel® Pentium® 4 Processor

\$948

- Intel® Pentium® 4 Processor
- 2GB DDR400 Memory
- 160GB SATA Hard Drive
- NVIDIA GeForce 7000 Graphics Card
- DVD-ROM Drive
- Windows XP Home Edition
- 3 Year Parts & Labor Warranty

**Value Gamer 1200**  
Intel® Pentium® 4 Processor

\$498

- Intel® Pentium® 4 Processor
- 2GB DDR400 Memory
- 160GB SATA Hard Drive
- NVIDIA GeForce 7000 Graphics Card
- DVD-ROM Drive
- Windows XP Home Edition
- 3 Year Parts & Labor Warranty

© Copyright 2004 NCIX Corporation. All rights reserved.

Enhance your  
system with these  
great options!

Products available at special  
pricing with system only\*

**BenQ**

FP731 MediaServer 17" LCD Monitor

Add \$498<sup>99</sup>

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

Free shipping to the United States

**FREE** NCIX.com  
24 CD/DVD CASE

Your E-Mail Address

NCIX.com is a leading online retailer of computer hardware and software. We offer a wide selection of products at competitive prices. To receive your free CD/DVD case, please visit our website at [www.ncix.com](http://www.ncix.com) and enter the code 24CD in the coupon field. The code is valid for a limited time only. While supplies last. Offer good in the United States only. © 2004 NCIX Corporation. All rights reserved.

3 Great Locations in Greater Vancouver!



**Burnaby** 4550 Kingsway, Burnaby, BC V5H 4A5  
**Richmond** 12000 Steeles Ave. E., Richmond, BC V6X 1A7  
**Surrey** 15000 104 Ave., Surrey, BC V3R 1A7

NCIX.com recommends  
Microsoft® Windows® XP  
Professional

\*Shipping to the United States  
is available for orders over \$200 purchase price.

**NO HIDDEN FEES!**

NCIX.com is a leading online retailer of computer hardware and software. We offer a wide selection of products at competitive prices. To receive your free CD/DVD case, please visit our website at [www.ncix.com](http://www.ncix.com) and enter the code 24CD in the coupon field. The code is valid for a limited time only. While supplies last. Offer good in the United States only. © 2004 NCIX Corporation. All rights reserved.

**NCIX.com**

Great Technology, Service & Selection

THREE GREAT LOCATIONS!

**BURNABY** 4550 Kingsway, Burnaby, BC V5H 4A5  
**RICHMOND** 12000 Steeles Ave. E., Richmond, BC V6X 1A7  
**SURREY** 15000 104 Ave., Surrey, BC V3R 1A7

Visit [www.ncix.com](http://www.ncix.com) to order!  
FAST & EASY shipping anywhere in Canada

Toll Free: 1-888-NCIX-8888  
9AM-5PM PST (9AM-12PM EST)  
9AM-5PM PST (9AM-12PM EST)  
9AM-5PM PST (9AM-12PM EST)